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SOME ECONOMIC ASPECTS OF WAR

A LECTURE DELIVERED BEFORE THE ARMY
WAR COLLEGE AT WASHINGTON, D. C.
APRIL 11, 1913

BY

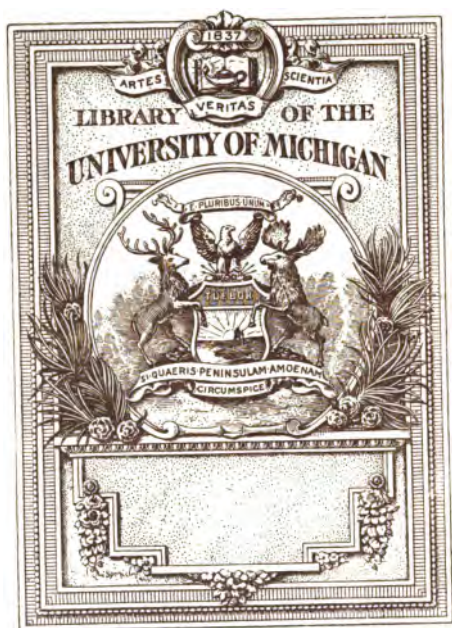
HENRY C. EMERY

Professor of Economics at Yale University

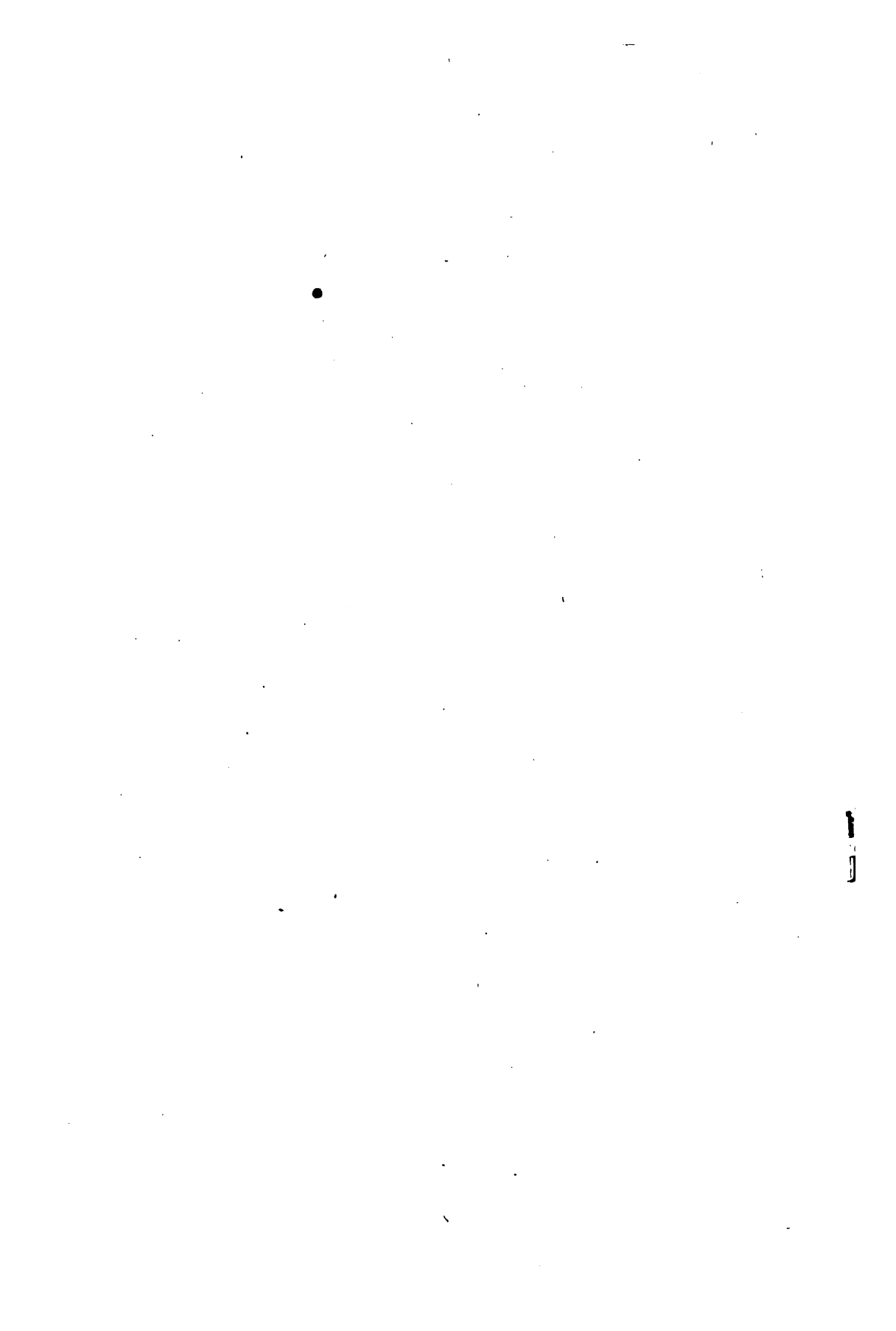
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SOME ECONOMIC ASPECTS OF WAR.

This lecture, which I present with much misgiving, is the result of a brief conversation which I had with Col. Greble, Capt. McCoy, and a few others one afternoon last fall when I happened to come upon them in the midst of a military discussion. Some joking remarks were made on the assumption that, as a political economist, I would be, naturally, opposed to any program for an increased military organization, which was the topic of conversation. To justify myself in such company, I began to give some of the economic arguments in favor of a strong military organization, and some days afterwards I was invited by Gen. Wood to address the officers of the military college.

I was so flattered by the invitation that I accepted without much thought, and now feel much embarrassed at having done so. It is hardly possible that there is any problem regarding war or military armaments with which you are not much more familiar than I am myself, and I am not here this morning with any idea that I can tell you anything new. On the other hand, I try to justify myself for taking your time in this way because it is often interesting to have familiar facts approached from a different angle, and to have one's own ideas in some measure supported by an outsider, who can not be charged with any personal or professional prejudice in his expression of views.

I shall start far from the immediate subject by suggesting to you that, disregarding the theories of individual philosophers, there are three, and only three, general theories of society, or theories of historical development, which have been held in modern times by large numbers of men, and which have directly influenced the policies of nations. These I shall call individualism, socialism, and nationalism. To the individualist the activities of the present day and the whole course of history are to be interpreted as a struggle between individuals, each seeking his own welfare under the guidance of enlightened self-interest. To the socialist the history of mankind presents itself as primarily a struggle between classes within a given society, each class attempting to secure for itself privileges, prerogatives, and the lion's share of power and material comfort, and each class in turn being overthrown through the rise of a new and more

powerful class. Finally, the nationalist reads history as a record of struggle between political groups, races, or nations, and looks upon the problem of national survival, expansion, and supremacy as the vital concern of mankind.

All of these theories have an element of truth and each in turn is likely to be disregarding of the significance of the others. The individualist refuses to recognize the fact, or at least refuses to recognize the necessity, of the struggle between classes and the struggle between nations. He looks upon the interests of labor and capital as harmonious and equitably adjusted by the play of economic forces, and he largely disregards national boundaries as playing any essential rôle in relation to man's welfare and prosperity. Thomas Cooper, an early president of King's College, New York (now Columbia), said that the word "nation" was merely a grammatical contrivance, corresponding to no reality.

The socialist, on the other hand, fails to recognize the importance of competition within groups and sees little but the united forces of one class facing those of another. At the same time he is as cosmopolitan as is the individualist and believes that the mutual interests of classes throughout the world are powerful enough to break down national boundaries and to make struggles between nations impossible in the future. I leave it to you to search your own minds as to how far you also, with your ideas of the importance of national struggles, disregard the element of truth which lies in the other two theories.

It is possible to combine two of these conceptions of history together, and a brilliant German economist begins a book by the somewhat brutal statement that all history is either a struggle for the feeding ground or a struggle for a share of the fodder.

The last theory of society to which I have referred, namely, that of nationalism, is historically the first, but I have put it last because it has been vigorously revived in recent years, both on the basis of new theories of science and on the basis of changed economic conditions. For centuries the bitter struggle between racial and natural groups was so patent and obvious a fact that it was generally accepted as the all-important factor of human affairs, without much theorizing regarding it either on the part of the statesman or on the part of the philosopher.

A strong reaction developed in the early part of the nineteenth century, and the opposing individualistic conception largely dominated both the ideas of thinking men and the policies of statesmen, especially in the second and third quarters of the century. This was partly the result of the new philosophic ideas which characterize the close of the eighteenth century, especially in France and

England, and partly the result of the peculiar commercial conditions of that time.

The best expression of it, especially in the field of economics, is to be found in Adam Smith's "Wealth of Nations," published in 1776, in which he preaches the doctrine of the "natural system of liberty" and opposes all the regulations and restrictions which had been used with the view of advancing the prosperity of one nation at the expense of others, and laid the foundation for that theory of leaving the welfare of society to be worked out through the complete liberty of the individual to follow his own best interests, unchecked and unregulated by the action of government.

Seed of this nature fell on fertile soil at the close of the Napoleonic wars. Europe was worn out by a long series of wars which had culminated in that titanic struggle, and from sheer exhaustion nations were ready to accept a philosophy of perpetual peace. But equally important was the fact that England had advanced so immeasurably beyond other nations in industry and commerce that for a long time to come the possibility of economic rivalry between nations seemed slight. England had everything in her favor in desiring peace with all the world. She had in the past adopted a policy of vigorous protectionism and of brutal aggression wherever commercial gains were to be secured. She had come out so completely the victor that it did not seem worth while for any other nation to attempt now to enter into rivalry with her, either by the adoption of her commercial policy or by an attempt at the reconquest of her vast colonial possessions.

Under these conditions the policies of peace, economy, free trade, and laissez faire went hand in hand and were generally accepted by most thinking men as representing the policies which the world should have followed in the past and was now destined to follow indefinitely in the future. The interests of the individual and the state were assumed to be identical and the interests of nation with nation to be completely harmonious. Thus the principles of individualism and cosmopolitanism came to hold sway for more than 50 years. A great change, however, was to take place and the doctrines of that time have come to-day to be widely discredited by the most profound students of economics and politics. As one recent writer—Prof. E. V. Robinson—has well expressed it:

Finally, in addition to the silent crumbling away of the philosophical foundations of the cosmopolitan theory and its breakdown on a matter of such capital importance as the relation of the state to industry, has come its total discredit through the ascertained falsity of its economic assumptions. It was assumed (1) that England was destined to be the workshop of the world; (2) that free trade was to solve the economic (or social) problem; (3) that the world was soon to adopt the unrestricted exchange of products; (4) that the era of per-

petual peace was close at hand—all of which, being necessary inferences from the accepted doctrine of economic harmonies, as formulated by Bastiat, were formerly thought above discussion, but now are held beneath it.

As I have already said, the causes for this change in attitude are two-fold: First, revolutionary changes in scientific theory regarding organic life; and, secondly, the change in economic conditions which brought about a renewal of national rivalry and an increased sense of race conflict. The full significance of the Darwinian theory of the formation of species through natural selection based on a struggle for existence was not at first appreciated so far as its bearing on the history of human societies was concerned. When, however, national antagonisms once more came to make themselves consciously felt it was found now that our conceptions regarding the problem of race struggle took on an entirely new aspect. Here was a scientific theory ready at hand to give a profound philosophic basis to a nationalistic conception of history, both past and future, which the writers of the middle of the nineteenth century supposed they had disposed of for all time.

This evolutionary application of the function of war in the history of civilization has been made by many writers. Much attention is paid to it by the well-known Dutch writer, Dr. Steinmetz, in his recent work entitled "*Die Philosophie des Krieges*." The first writer in English to develop this idea in striking form was Walter Bagehot in his epoch-making little book entitled "*Physics and Politics*." The main thesis of the book is the development of race character and the advancement of civilization through the continuous struggle of competing groups for expansion and supremacy, in which the process of natural selection operated, as in the case of all organic life, to bring about the survival of the fittest.

One chapter of this work is entitled "The use of conflict," in which he says:

The progress of the military art is the most conspicuous—I was about to say the most *showy*—fact in human history. Ancient civilization may be compared with modern in many respects and plausible arguments constructed to show that it is better; but you can not compare the two in military power. Napoleon could indisputably have conquered Alexander; our Indian army would not think much of the Retreat of the Ten Thousand.

I venture to quote at length another passage in the same chapter:

Particular consequences may be dubious, but as to the main fact there is no doubt; the military strength of man has been growing from the earliest time known to our history straight on till now. And we must not look at times known by written records only; we must travel back to older ages, known to us only by what lawyers call *real* evidence—the evidence of things. Before history began there was at least as much progress in the military art as there has been since. The Roman legionaries or Homeric Greeks were about as superior to the men of the shell mounds and the flint implements as we are superior to them. There has been a constant acquisition of military strength

by man since we know anything of him, either by the documents he has composed or the indications he has left.

The cause of this military growth is very plain. The strongest nation has always been conquering the weaker; sometimes even subduing it, but always prevailing over it. Every intellectual gain, so to speak, that a nation possessed was in the earliest times made use of—was *invested* and taken out—in war; all else perished. Each nation tried constantly to be the stronger, and so made or copied the best weapons; by conscious and unconscious imitation each nation formed a type of character suitable to war and conquest. Conquest improved mankind by the intermixture of strengths; the armed truce which was then called peace improved them by the competition of training and the consequent creation of new power. Since the long-headed men first drove the short-headed men out of the best land in Europe all European history has been the history of the superposition of the more military races over the less military, of the efforts—sometimes successful, sometimes unsuccessful—of each race to get more military; and so the art of war has constantly improved.

But why is one nation stronger than another? In the answer to that, I believe, lies the key to the principal progress of early civilization and to some of the progress of all civilization. The answer is, that there are very many advantages—some small and some great—every one of which tends to make the nation which has it superior to the nation which has it not; that many of these advantages can be imparted to subjugated races or imitated by competing races; and that though some of these advantages may be perishable or inimitable, yet, on the whole, the energy of civilization grows by the coalescence of strengths and by the competition of strengths.

It would be hard to exaggerate the change which has come about, both in historical writing and in political thinking, as a result of the theory of natural selection. History has been largely rewritten in the light of this new philosophy, and more and more has the economic element come to be emphasized as the determining factor in the history of national struggles. However, if the effect of the new theory was merely to change our interpretation of the past it would be of relatively little significance for the problem which we are discussing. The vital question is how far this principle is operative at the present time and whether or not it throws any light on the practical problems of the moment.

It would never have come to full recognition in the field of human affairs had not marked changes taken place in economic conditions since the triumph of the free trade school in England. I have referred to the early period of mercantilism, when every weapon of a nation was utilized to advance its own interests at the expense of rivals. These weapons were various, including protective tariffs, prohibitions and bounties on exports and imports as the occasion might demand, commercial treaties, the arts of diplomacy, and finally war.

The last 25 years has seen the development of a neomercantilism which, although more enlightened in detail than the commercial policy of the seventeenth and eighteenth centuries, still takes as

its starting point the rivalry between nations rather than the harmony of their interests, and uses, or stands prepared to use, the weapons of that earlier period. From the doctrine of individualism spring the ideas of free trade, economy, and perpetual peace. From the doctrine of nationalism spring the ideas of protectionism, economic independence, the necessity of increased public expenditure, and the inevitableness of war. This is as true of the nationalism of to-day as it was of the mercantilism of the seventeenth century.

What is the reason for this return in modern times to political and economic theories which have been temporarily so completely supplanted? The answer is, of course, to be found in the changed economic conditions, including a great increase in population and an extraordinary industrial expansion. The great economic progress of the years when the peace and free-trade dogma was so influential has been the very cause of its own overthrow. As I have already said, for a half century after the Napoleonic wars the economic rivalry of nations, which had been so vital and influential in the earlier period, temporarily disappeared. As industry recovered and proceeded to advance by leaps and bounds, nations were again brought face to face with the fierce problems of international competition. France, Germany, and the United States pushed rapidly to the front, and the theory that England alone should be the workshop of the world was no longer tenable.

The growth of industry made the problem of control of neutral markets a crucial one for the prosperity of industrial nations, and the rapid growth of population suddenly brought mankind face to face with the problem of the ages; namely, is there room on the earth for the indefinite expansion of all competing races? If not, who shall get off the earth? Which races shall expand and exploit the world's material resources, spreading their own peculiar civilization at the expense of others? Here we have the problem of the struggle for survival and natural selection, not as a scientific theory of the evolution of lower organisms, but as a practical problem of the moment for every nation to face. What race is meekly going to admit its own inferiority without a struggle, and calmly step aside to make room for the expansion of its rivals?

The growth of population in the future, as in the past, may be expected to act like the generation of steam. Either there must be some exhaust through the safety valve or else an explosion. And when the areas available are inadequate to relieve the increase in pressure, which may be the case recurringly in history, international contests are almost inevitable.

Ideas of this kind are laughed at by many of the most intelligent people in the United States, and it is not unnatural that such ideas should be little recognized in this country in view of our past his-

tory. In the first place, we have always considered ourselves largely isolated from the rest of the world and exempt by our geographical position from the problems of the older nations. In the next place, the extent of territory and the great natural resources of this country made the problem of the pressure of population on subsistence seem almost a ridiculous fancy.

Our isolation to-day, however, is by no means so complete as we had formerly thought, and we now recognize that the era of inexhaustible free lands for a growing population has passed forever. It is entirely natural, however, that these ideas should have been held more widely in Europe and should have led there to a greater intensity of feeling than in the United States. That the whole attitude of European thinkers toward the problems of national rivalry has changed during the past generation can not be questioned, and it has changed simply because European nations have again been brought up against the hard fact of earlier ages. The idea is growing that now, as formerly, the indefinite expansion of a race in numbers and prosperity can only be ultimately continued by means of conquest.

These are not the views of the military class alone. They are the views held, for instance, by many professors of political economy, a class who (it has always been assumed in England and the United States) were necessarily, from their profession, advocates of economy, disarmament, and peace at all costs. A striking volume of essays by leading German economists appeared a decade ago dealing with the commercial problems of Germany, in which the two chief notes were, first, the necessity of a vigorous Government policy to advance the world trade of the Empire, and, second, the demand that German trade should everywhere be carried on under the sheltering protection of German guns.

So far I have attempted to point out the contrast between certain general theories of society and the historical reasons for the overthrow of the old philosophy of nationalism by the ideas of a cosmopolitan individualism in the nineteenth century, and for the reaction in turn against this cosmopolitanism and the substitution of a new nationalism in the twentieth century. Let me now consider briefly certain problems regarding the relation of war to economics; that is, to commerce and industry, in a more practical way.

There are two phases to this question: One is the effect of commerce on war and the other is the effect of war on commerce and economic welfare. On both many erroneous views have been held by the theoretical advocates of peace and disarmament.

First, then, what is the effect of commerce on war? For many years it was maintained by the group of writers most influential in their day that the growth of commerce inevitably meant the end of

war, as certainly as it had meant in the past the end of piracy and the lawless regulation of individual affairs by the sword or the pistol. I recall that in the days of Mr. Godkin the New York Evening Post regularly printed an editorial about once every six months to prove wars would be impossible in the future because the business men would no longer tolerate such medieval brutality and waste; and, if I am not mistaken, I occasionally see in its columns editorials of this same nature.

This idea can be found here and there from early time. It was given strong expression by the Philosopher Kant in his work on Perpetual Peace. Under the influence of the humanitarian philosophy of the eighteenth century he was one of the strong leaders of the antimilitary spirit, and in searching for some fundamental cause to prove that war would ultimately be abolished he found it in the growth of the commercial spirit which, he claims, was bound to become more and more the controlling spirit in human affairs and which was in its very nature opposed to the spirit of war.

The same idea was taken up by Herbert Spencer in his sociology and his famous division of all societies into the military type and the industrial type is well known. Spencer holds, somewhat strangely it seems to me, that "aggressive egoism" is an essential characteristic of the militant type of society, but is only incidental to, or, as he says, "extrinsic," to the industrial type which, he claims, "favors the growth of altruistic sentiments and the resulting virtues." What is more important, however, is that, while recognizing the difficulties of political prophecy for the immediate future, he assumes that the forces of social evolution will ultimately bring about the industrial type as the permanent form of society. His disciples have carried this idea even farther and have seemed almost to hold that the elimination of war in the future had been scientifically proved.

Economic historians of the present time, however, have dealt with the historic problem of war in a very different spirit from the writers of one or two generations ago. It is now generally recognized that commerce, or at least the economic problem of subsistence, has been not a deterrent of war, but more than any other one thing a cause of war in the past. Prof. Robinson of the University of Minnesota some years ago published a brilliant and learned essay entitled "Economics and War," in which he concisely traces the influence of commercial rivalry on the wars throughout the centuries.

From tribal struggles of prehistoric days for the possession of the best hunting grounds down through the barbarian invasions of Europe (caused ultimately by the search for food), through the struggles of England, France, Spain, and Holland in the seventeenth

and eighteenth centuries, to the final contest between England and Napoleon, wars were caused primarily, not by the prejudices and jealousies of rulers and statesmen, but by the bitter rivalry for the control of the world's economic resources. It is even maintained by historians that the so-called "religious" wars were primarily economic in their character and that even the Crusades were undertaken rather for the spoliation of the rich resources of the East than for the rescue of holy land.

Molinari states in his work on "*Grandeur et decadence de la guerre*":

When experience had demonstrated that the Crusades no longer paid, they were given up, and the wars of expansion of the peoples of Europe did not commence again until after the discovery of America.

Regarding another so-called "religious" struggle, Prof. Schmoller has gone so far as to say:

The heroic struggle of the Dutch displays itself, when looked at in a dry light, as a century-long war for the conquest of East Indian colonies and an equally long privateering assault on the silver fleets of Spain and the Spanish-American colonial trade.

One might suppose that Cromwell, of all statesmen, would have been moved by religious sympathies, but when the commercial expansion of England was at stake the Protestant Dutch could expect no more sympathy from the Puritan than from the Stuart. The ruthless overthrow of Dutch maritime supremacy by the English is the striking feature of the third quarter of the century. It was inaugurated by Cromwell and carried through under Charles II, and was in no way affected by the personal feelings of either. It was purely a problem as to which nation should be mistress of the seas and master of the world's markets.

Has anything happened to stop this age-long result of commercial rivalry? The most recent wars, such as the Boer War and the war between Russia and Japan, have unquestionably been primarily economic in their nature and, if I have been correct in my statement regarding the economic changes of the last generation and their effect in increasing race consciousness and feelings of international hostility, we may be sure that even more completely than in the past nations will seldom go to war except for commercial advantage, but will ultimately resort to arms when convinced that by victory they will secure for themselves the necessary means of maintaining or expanding their commercial welfare.

Again, it may be said that the United States are not subject to the laws of economic and political development of European nations, and that any commercial gain through war is an impossibility for this country. Such a view seems to me shortsighted in the extreme. We are already in touch with the problems of European politics

through our island possessions; we maintain the doctrine that the whole American continent shall be removed from the future aggressions of foreign powers; and we are already reaching the point where the problem of the pressure of population on subsistence is no longer so distant as to be disregarded, but may become a vital problem even within the lives of children now living.

Let us turn, then, to the second phase of our question, the effect of war on commerce and industry. Here again we have to meet the common and obvious reply to this question, namely, that the effect of war is always destructive. That it is destructive in many ways nobody could question, but it is not necessary to dwell here in detail on such obvious facts as the tremendous financial cost of war, the loss of capital through positive destruction and devastation of conquered territory, the waste of capital even for the conqueror in the utilization of so large a number of the means of production for merely destructive purposes and the removal from the ranks of industry of hundreds and thousands of workers who might be engaged in increasing wealth rather than in destroying it. All of these results of war are familiar enough and even if accurate figures were available it would not be necessary to repeat them here.

Many modern writers think that such destructive effects have been exaggerated in the past in the same way in which that other fearful loss, the loss of life, has been exaggerated. The loss of life we look on, not so much as an economic problem, as a humanitarian one, and it needs no expression here. I should like to say in passing, however, that it seems strange to me that there are so many who, while talking of the sanctity of human life and expressing horror of war on this ground, seem to be unmoved by the far greater loss of life which comes from competition in the economic field with its resulting degradation of labor in certain lines of industry, the maintenance of crowded and insanitary slums, the spread of disease, and the degeneration, if not starvation, of a part of the generation which is to take our places. Here is a death roll far greater than that of modern warfare, and a death roll which has no high compensation in the glory of courageous daring or faithful service to country.

Dr. Steinmetz, in his book on the philosophy of war, to which I have already referred, claims that the loss of life in the European wars of the nineteenth century has been less than is represented by the normal fluctuations of the death rate from year to year in any given country. However, as I have said, the question of the loss of life is not a part of the subject of this lecture. I wish, however, that somebody would make some judicious estimate of the problem of disease in connection with military operations. You, of course, know that in past wars a very large proportion of the deaths has been due to disease rather than to the shot of the enemy. This is

likely to be greatly changed in the future. Nowhere have the problems of proper sanitation and care of health been more thoroughly studied than in modern armies, and the great advance along these lines will make the loss from these causes very much less in future wars.

It is only fair that the public should also recognize the splendid services rendered to public health by our military organization. It may be that under any circumstances yellow fever would have been stamped out. As a matter of fact, this great feat was accomplished directly through our military occupation of Cuba. It would be hard to estimate the great economic gain which has come to this country through the removal of recurring yellow-fever scares, with the resulting quarantines and interference with business. It can certainly be stated with all positiveness that since the outbreak of the Spanish War more lives have been saved by a hundredfold than have been destroyed by the United States Army.

Can anything now be put on the credit side to show that war is not always and in every way a deterrent to economic welfare? Certainly much may be said on the credit side, and I know of no phase of the problem of war and armaments which has been so neglected. A distinguished German writer, Prof. Sombart, in a book which has just been published, entitled "*Krieg und Kapitalismus*," devotes himself to the attempt to show that, historically, war has been an important agent in bringing about the growth of modern capitalism.

In the first place, it is only through war that modern states have been formed, with a strong national government and the possibility of a genuine national economic policy which took the place of the local and territorial economies of an earlier period. The history of England in an earlier period and the history of Germany in the nineteenth century furnish adequate proof of the close connection between the development of modern industry on a great scale and the development of great national units in the field of politics. Furthermore, war and colonial expansion have always gone hand in hand, and the development of colonial empires has been one of the important factors in the growth of modern capitalistic production and commerce.

But this author suggests that war has worked more directly in the upbuilding of capitalism through its creation of the modern army with its vast needs and the great impetus given to large-scale production through the huge financial operations resulting from war loans and the first appearance of a concentrated demand for the productions of industry in enormous quantities.

Sombart traces the effect of military development on economic conditions from the beginning of modern military organization to the end of the eighteenth century and summarizes his conclusions

under three heads: First, that war, and consequently the necessity of military armaments, has been an active force in increasing the accumulations of capital. This may seem a strange conclusion in view of what has already been said of the destructive effect of war on capital and productive forces. The fact is that war acts in a twofold way. The enormous commercial contracts involved in a great war have in the past made possible the accumulation of large individual fortunes and at certain stages of history, at least, such large individual accumulations have been a distinct spur to great savings and consequent investment on a large scale in industrial enterprises which, in turn, have increased the capital of the community as a whole.

Secondly, the growth of capitalism requires the development of a new psychological type of industrial leader. This new leadership depended on the capacity to undertake vast enterprises requiring consummate ability in organization and direction and the capacity to wait patiently and work continuously for results which could only be accomplished at some future date. But it is exactly in the field of military organization and warlike enterprise that these capacities were first developed. To-day, and in this country, it may be that business enterprises have grown to such magnitude that individual concerns even overshadow the military organization in matters of this kind, but historically the first great economic enterprises resulted from military needs, and it may fairly be said that from such needs the modern business world received its schooling in the matter of organization and large-scale enterprise.

The third point which this writer makes is that military expenditures offered the first great markets for production on a large scale, and that in many lines of industry, such as the iron and steel industry, the textile industry, and industries connected with the food supply, what may be called the military market was a fundamental cause of the development of modern industrial methods, and the increased efficiency of large-scale production. Much more might be said historically about the effect of war on economic organization from this point of view. For instance, in the field of transportation, the military roads of the Romans became the highways of commerce, and this was also true in later days of the road building policy of Napoleon. In the same way in modern times railroad building and railroad consolidation have not infrequently been undertaken for military purposes, to serve later an important economic need. But we can not take time here for historical analysis.

Sombart, in closing his study with the end of the eighteenth century, seems to do so with the idea that this developing influence of the military organization on the economic organization had done its work by that time and that in the later period conditions are reversed. I believe, however, that to a lesser extent the same influ-

ences could easily be traced down to the present day. Let us consider for a moment what we should theoretically expect to be the influences of war on the credit side so far as economic conditions are concerned, and draw a few illustrations from our own recent history.

In the first place it should be stated that the growth of industry and trade does not depend solely on the growth of capital and the quantity of labor, as was commonly assumed by the writers of the peace and free trade era. Equally important is the character of leadership in the industrial field, and by this I do not mean only the ability to organize and coordinate the forces of production on the part of the captains of industry; I mean also the more subtle qualities of confidence, faith in the future and speculative daring. These are vital elements in commercial progress, but they are of peculiar psychological character and are affected by many influences which are not at all economic in their nature. Is it not to be expected that under the impetus of a great war, when national fervor is at its highest point and the spirit of daring and sacrifice pervades the community, that these influences should also be felt in the field of business, and that men should confidently undertake enterprises which in calmer times would have seemed staggering and impossible in their nature? I believe that on this point ample evidence could be found.

I recall a conversation at the outbreak of the Spanish War between two able men of the old school who agreed that that war would put the United States back morally and economically a full quarter of a century. This prophecy was scarcely fulfilled. The period before the outbreak of the Spanish War had been a period of great stagnation and hard times. Nobody dared to borrow capital to develop new enterprises or to expand old ones, while the half dozen years following the war were perhaps the most extraordinarily prosperous in our whole history. I do not mean to say that hard times would have continued without the war, or that the war was the fundamental cause of business revival, but I do think it played a distinct part. We had come to the point where the evils of excessive industrial expansion had worked themselves out, supplies had been greatly diminished, and an increased demand was bound to come, working toward improved conditions. But a demand has to be started by somebody. A break had to be made at some point in the business timidity which had prevailed for so long, and the war came at the psychological minute to start the upward movement.

This was partly due to the fillip given to trade by Government contracts, but much more, I think, through the psychological change which resulted from getting our minds away from the industrial hardships of the preceding years and the stimulating feeling that at last there was "something doing." In other words, the war came

as a trumpet call, not only to the military spirit of the country but to the industrial spirit as well.

Certainly this psychological influence played a marked rôle in the extraordinary industrial development of Germany immediately after the Franco-Prussian War. Again, I can not stop to attempt any analysis of the many factors which contributed to this development, but I am confident that a primary one was the increased confidence in their own capacity which this signal triumph gave to the German people. Again I wish to urge the fact that courage and daring are as essential elements in the field of industry as in the field of war. One reason why the Germans began to beat their rivals in the economic field was that they had at last realized that they could beat their rivals, and this realization came to them largely as the result of the fact that they had beaten them in the field of war.

Our Civil War offers many examples of the same kind. The vigor of business life in the North throughout that great conflict is still a matter of amazement for the economic historian. Here again the influence was twofold. The huge Government contracts acted as an extraordinary degree of protection and encouragement, but equally important was the fact that the same spirit of forward endeavor which animated the armies in the field also animated the leaders and the rank and file in the domain of business.

I would only suggest one other theoretical result of war in this connection, but that an all-important one on the credit side of the ledger and more perfectly illustrated during our Civil War than at any other period in history. Again note the ordinary assumption of the writer of the old school that capital and labor are always employed to their full extent. No allowance was ever made for the enormous reserve productive force which can be called out in time of emergency. And yet should we not expect theoretically that a time of great stress (as a result of armed conflict and depletion of the ranks of labor for military purposes) would be in large measure at least offset by the utilization of this reserve force? Workmen who had already been employed would work harder and longer. The very necessity of the situation would demand better organization and the utilization of the most economic methods of production, while there is a vast reserve fund of labor which, under ordinary circumstances is not employed, can be called upon at such a period. In other words, the destructive influence of war on industry, which would seem to be a patent fact due to so large a proportion of the population being removed from the ranks of industry, proves not to be a net loss at all, but is largely made up from the industrial reserve force.

Prof. E. D. Fite has recently published a book entitled "Social and Industrial Conditions in the North During the Civil War." We

have already been familiar with the extraordinary fact that production in most lines did increase during this period, but he has here collected a large amount of interesting evidence to show how general this condition was. Certain industries were, of course, seriously crippled, especially the cotton industry, due to lack of the supply of the raw material, and the serious effect of this situation on European industry is well-known. Such disturbances as this must always stand on the debit side of the ledger as real destructive effects, but in the main manufactures were not only flourishing from the financial point of view, but the actual output was increased. We produced in 1864 50 per cent more iron rails than in any year before the war. Much the same was true of many other lines of manufacture.

Even more surprising, perhaps, was the agricultural situation. Here the reserve forces of labor made themselves most apparent. When the men went to the front the women and the boys took their places on the farms. The situation was well expressed by the popular verse of the times:

Just take your gun and go,
For Ruth can drive the oxen, John,
And I can use the hoe.

The truly surprising feature of this agricultural expansion was not that the increased production was exhausted by the demand for food supplied for the Army, but that the surplus above our own needs was also increased, and we actually exported more grain in 1863 and 1864 for European consumption than we had ever done before, and this with more than a million men removed from the ranks of industry. In 1864 Indiana, for example, with 10 per cent of her total population in the Union ranks, produced more wheat than she had produced in any year before the war.

Similar illustrations, I believe, could be found in other countries. And it is not always the conquering country alone which shows effects of this kind. The industrial expansion of Germany after the Franco-Prussian War has been referred to, but only less striking was the increase of industry and rapid growth of prosperity in France as well. Do not understand me to say that war is to be advocated as a method of increasing the production of wealth. I am only trying to point out how greatly its destructive effect has been exaggerated. The expansion of business during the Civil War in the Northern States was perhaps in spite of the war rather than because of it. Of course due credit should be given to the discovery of new natural resources, such as petroleum, during this period and to the rapid increase of inventions, a number of which, brought out during the Civil War, revolutionized old or established new industries. What most writers on the subject of war and business have

forgotten, however, is that the productive capacity of a community is in normal times only partially utilized, and that consequently the economic loss due to war is very much less than has commonly been supposed.

Personally, I am inclined to the opinion that in certain ways, and especially in the case of those industries which supply war materials, the Civil War actually acted as a stimulating influence. It is never possible after the event to say what would have happened had conditions been different, but I believe a good case could be made for the contention that the condition of industry in the United States in 1870 was as prosperous and as advanced as it would have been had there been no great struggle in the first half of the decade. In certain specific lines the influence of the war in increasing the productive capacity of the country can be definitely traced, due to that new spirit of daring to which I have referred in general terms above. Men like Gen. Grenville Dodge have testified to the importance of their army experience in this regard. Officers who like him went into the great work of railroad building following the war assert that no such extraordinary achievement as, for instance, the rapid building of the Union Pacific would have been possible on the basis of merely industrial experience. It was because they had become accustomed from sheer necessity to face great emergencies in building operations for military purposes and to be daunted by no difficulty whatsoever that they took up the new and vast enterprises in a spirit which was essential for their success.

But one cost of war there is which can be measured in cold figures and for which there seems to be no economic offset. That is the actual enormous governmental expenditure frequently entailed. The piling up of government debt is a burden on the taxpayer of the present and future generations which can not be waved aside, and which goes far to offset any argument which can be made in favor of war from the economic point of view. How is this great problem to be met? The obvious answer is by having short wars, and the obvious way to have short wars is to be prepared beforehand to make them short.

This is the part of our question which touches you gentlemen most directly. You believe in military preparedness and in adequate appropriations to this end. As a political economist solely I thoroughly agree with you. The tremendous cost of war in this country has been due to the fact that we have never been prepared for war. You do not need any testimony from me on this fact. You have all of you worked out much more fully than I have the extent to which the military expenditures of this Government have been increased in the long run as the result of the lack of any adequate and

intelligent military organization. I regret very much that the intelligent public in this country appreciates this fact so little and is so little inclined to learn from the lessons of past history. It is a pity also that the writers on political economy are so little alive to the advantage of spending before the war rather than during the war as a purely business proposition.

I still recall vividly the first lecture which I heard at the University of Berlin when studying political economy as a young man at that institution. I had myself been brought up under the influence of the classical political economy, and rather accepted it at that time as an axiom that military expenditures, although perhaps necessary in some measure, were wasteful and regrettable, and should be reduced to the lowest terms. The first lecture I heard was in a course on public finance by Prof. Wagner, recognized as the greatest authority on that subject in the world. The day of my arrival he was lecturing on military expenditures, and I shall never forget my revulsion of feeling as I heard him contrast the policy of Germany with the policy of the United States. Vigorously and skillfully he contrasted our policy in the days before the Civil War with the policy of Prussia in the years preceding the Austrian and French wars, and then showed the economic results of the two policies. We who had complacently congratulated ourselves on saving our money were plunged into a stupendous conflict at a cost till that time unheard of, while Prussia annihilated Austria in a few weeks, and in a few months after the outbreak of the Franco-Prussian War the Germans had every French army subdued or bottled up beyond the possibility of escape, and then was able to secure a huge indemnity to serve as the necessary capitalistic basis of the forward march of German industry.

It ought to be apparent, both theoretically and from experience, that the cost of peace armament is not to be measured simply as a net waste of money. Books, magazines, and papers are filled with statements regarding the enormous burden imposed upon the people of Europe by their increasing military expenditures, and the sums themselves and the continuous increase do sometimes appear staggering, but when compared with the total earning capacity of a people such expenditures take on a different character. Certainly Bloch is not likely to minimize the extent of such expenditures, as he has been one of the leading writers to show the immensity of this burden, and yet he himself states that the military expenditures of different European countries vary from 2 per cent to 3.8 per cent of the total income. Even Germany, with her great organization, takes less than 3 per cent of the actual income for its maintenance, both of army and navy; and when we think of the expenditures for luxuries, many

of them harmful in themselves, the extent of military expenditures appears even less. In Germany, for instance, three times as much is spent for intoxicating drinks as for the support of military and naval establishments. One-third less consumption of beer and liquor on the part of the German people would take care of this part of the budget altogether.

How, then, are we to estimate the real cost of an adequate military and naval organization in time of peace, and what is the nature of this cost? In the first place, much is frequently said regarding the economic waste which is involved in peace armaments, due to the fact that so large a number of adult young men are taken out of the ranks of industry year by year, thereby reducing the productive capacity of the community, since they might otherwise be employed in increasing the national wealth. The argument hardly applies in any serious way to an army such as ours, which is so small in proportion to our great population, but it is very questionable whether it even applies in a case like Germany, with its half million or more of men continuously under arms.

The same argument might easily be made regarding the number of able-bodied young people in our high schools, technical schools, and colleges. A few narrow-minded people deny the advantages of education altogether, and a still larger number are inclined to think that from the economic point of view education beyond the grammar school at least is a net loss to the community, and that the productivity of labor is not increased by education of this kind. I hope that education will still be advocated, even if it can not be defended on purely economic ground, but I think that most intelligent people of the present day believe that in the long run the productivity of the people is increased by education and that the growth of wealth is increased rather than decreased through our schools.

If now the military training has educational results of the same kind, compulsory army service is nothing more than compulsory education. I think it is now the opinion of most careful observers of German conditions that the military service of so many of her young men for two years acts exactly in this way. Youngsters are taken from the quiescent life of the farm, or from the somewhat dangerous life of factory communities and are trained in promptness, diligence, obedience, cleanliness, and fidelity to duty. Furthermore, they are given actual instruction in various lines in the way of increasing their general intelligence, and they of necessity become in some measure familiar with the intricate mechanism of military weapons, which in itself gives a certain training in the knowledge of machinery. Personally, I believe that the efficiency of factory labor in Germany has been greatly increased through this military education, and that the young men who have been through this

training become much more efficient in the field of production in later years than they would have been had they not been obliged to undergo this training at all. In other words, the compulsory service might be justified as economically self-supporting on purely educational grounds.

Another economic phase of the question besides the educational is the fact that preparation of this kind is in the nature of business insurance. It can easily be maintained that, from the educational point of view alone, an equally good training could be given for industrial purposes without such vast expenditure for armament and ships, but if it is true, as all history shows, that the safety of the commercial prosperity of any nation may at any time be threatened or overthrown by war, the question as to how this commercial prosperity can be best insured becomes a purely business question.

A nation may choose its policy in this regard exactly as an individual chooses his policy regarding his own business property. The business man with a reckless gambling instinct may prefer not to spend what may prove to be needless money in the insurance of his factory or of his goods in transit, but it is now the established custom of all conservative business men to carry full insurance against all risks. This is the policy of Germany to-day in military affairs and the policy of England more particularly in the maintenance of her naval strength.

We have seen what the results of an opposite policy in the United States have meant in the enormous losses which we have been forced to undergo whenever we have engaged in actual warfare. The man who does not carry insurance comes out very well in case conflagration or other disaster is avoided, but if such disaster comes he is brought to the point of ruin. Of course, it is frequently maintained that so far as this country is concerned the risks are so slight and insurance so costly that it is better to take the risks and save the inevitable expense of insurance.

I have already indicated my own feeling that it is living in a fool's paradise to assume so readily this absence of risk for ourselves if we look ahead for any serious length of time. I suppose none of us anticipates any immediate danger in the nature of international conflict, but the whole point is that if we believe in the possibility of such conflict any time within the next 50 years the time to make a start is now. If we once adopt the policy of delay there is no reason why it should not be extended year by year until the fatal moment comes and finds us entirely unprepared.

Furthermore, it should be said that if the political relations are such that we seem to need insurance less than other nations, on the other hand the financial relations are such that we can afford insurance much better than other nations. The wealth of this country

is greatly in excess of that of any other country, and it is increasing year by year enormously. Despite the fact that we all grumble about taxes, the fact remains that we have as yet only scratched the surface of the taxing capacity of the American people for Federal needs. The very extravagance of our Government in the matter of pensions, river and harbor appropriations, public buildings, and so forth, is a sign of the relatively light burden which people are called upon to bear. Conservative military men, I take it, do not propose that we should maintain such a military establishment in this country as would be as much in excess of European nations as our wealth and population are in excess of theirs. I have read over several times lately the report of the General Staff, published last August, on The Reorganization of Our Land Forces. It should be read by every citizen. Of course I have no knowledge of the problems there considered, but it is a remarkable document as a model of clear presentation and logical reasoning. It is also noteworthy for its sane appreciation of the necessity of orderly historical development and for the modesty of its proposals in the matter of increasing our Military Establishment. You ask only that the public and their representatives in the Government should appreciate the crucial character of the problem and should give the necessary support for the development of an organization which, though relatively small in itself, would be adequate both in numbers and in the character of organization to make possible the most prompt and effective increase of the military organization in time of emergency. I share with you the hope that in your propaganda for this more enlightened policy you will receive the support of business men and political economists alike.

A dozen years ago when a campaign of education seemed necessary in Germany to arouse a greater interest in Germany's navy and to secure support of the measures aiming at naval expansion it was a professor of political economy at the University of Berlin who was intrusted with this movement by the department of marine, and who was more responsible than anyone else for the successful carrying out of the movement. It was in connection with this movement that the volume of essays to which I referred above appeared, entitled "Hansels- und Machtpolitik," to which vigorous essays were contributed by eight or ten of the best-known professors of economics in Germany.

One final point I wish to make regarding the objection so frequently advanced that the victory in war is not a true test of the relative superiority of different nations. I frequently hear it asserted that a struggle of brute force does not tend to the survival of the highest type under conditions of modern civilization. Such critics seem to have the idea that modern warfare, like that of more

primitive days, depends upon the sheer physical strength of the parties engaged. In any case it is assumed that it is a matter only of relative numbers and wealth. But what is forgotten is that it is true to-day as Bagehot asserted it to be of primitive struggles that every intellectual gain of the community is taken out or invested in war.

I have sometimes thought that no fairer test of the highest efficiency of peoples could be made than by a duel of two dreadnoughts, each representing the highest scientific skill of its own people. Every capacity of the human mind, except the purely artistic and literary, is tested in a struggle of this kind. Where can a more marvelous result of modern genius be found than in the perfect ship? Even Ruskin was fond of dwelling on this conception; but a duel of two dreadnoughts would not be a test of the vital strength of two peoples. It is not only a question of the relative merits of ships themselves, but also a question of relative numbers and economic power. That nation which can build the most ships or support the largest armies is the nation which has shown the greatest genius in the acquisition of natural resources and in the accumulation of wealth. In fact, it may well be asserted that war is the most searching test of economic efficiency, and that, on the other hand, economic efficiency is finally the most important factor in determining the issue of military conflicts.

I do not wish at all to detract from the importance of the high military virtues or the great rôle played in all such contests by purely military genius. These again reflect the superior mental and moral qualities of one race as against another. In fact, there is one moral quality of the supremest importance which is developed more markedly by soldiers and sailors in time of peace than in any other field of human activity. I refer to the capacity to contribute all of one's ability, energy, and fidelity, not to a definite result which these men are to themselves witness, but to the mere possibility of a distant danger to some future generation. It does not take great moral courage for a business man to do his utmost in order to construct a great work or accumulate a great fortune which he is to realize in his own lifetime; but to work ardently and faithfully, day after day, to perfect an organization which perhaps within the life of a generation may never be put to the test, to do this on the mere chance that such an organization will be needed in the future, requires a patience, foresight, and a fidelity which men in other fields are scarcely, if ever, called upon to meet.

What I wish to emphasize is that all of these factors go together in determining victory or defeat, and that here, as elsewhere, the economic efficiency and the military efficiency of the people go hand in hand. Doubtless we all wish peace to be preserved and dread the

